

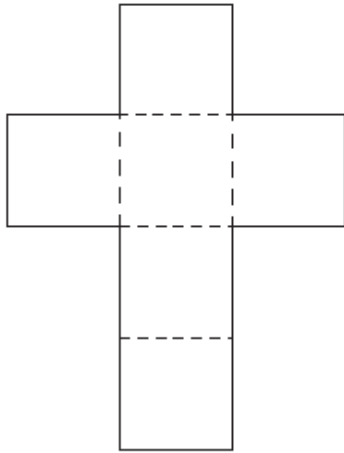
GRADE THREE EQAO QUESTIONS: Geometry

Overall Expectation #1:

- compare two-dimensional shapes and three-dimensional figures and sort them by their geometric properties

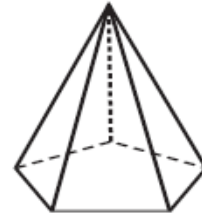
Spring 2006

- 14** Which figure can be formed using the net shown?



- ☐ Cube *
- ☐ Cylinder
- ☐ Square-based pyramid
- ☐ Sphere

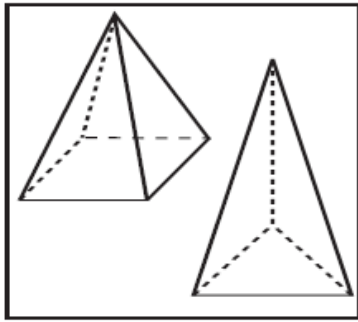
- 19** What is the total number of edges on the figure shown below?



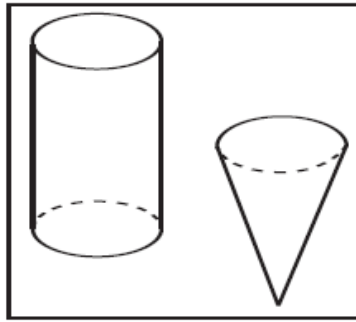
- ☐ 5
- ☐ 8
- ☐ 10 *
- ☐ 12

GRADE THREE EQAO QUESTIONS: Geometry

11 Alana sorts 4 figures into Groups W and X as shown.

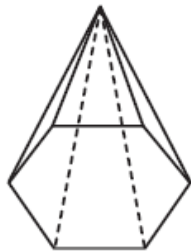


Group W



Group X

In which group should Alana place the following figure?



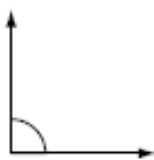
Explain your thinking.

Alana should place the figure in Group _____.

GRADE THREE EQAO QUESTIONS: Geometry

Spring 2007

14 Vera draws the angle shown below.



Which angle has a measure greater than Vera's angle?

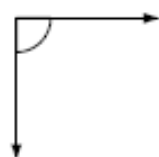
☐



☐



☐

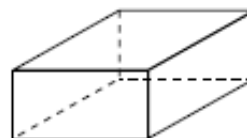


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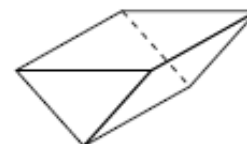


25 Which figure has exactly 9 edges and 6 vertices?

☐



☐



☐





☐



GRADE THREE EQAO QUESTIONS: Geometry

Spring 2008

34 Look at the chart below.

			<i>y</i>	<i>z</i>
Right Angle	✓	✗	✗	✗
4 Sides	✓	✗	✓	✗

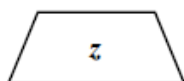
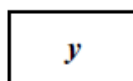
Legend

✓ = Yes

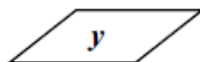
✗ = No

Which of the following shapes could belong in place of *y* and *z*?

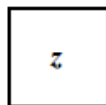
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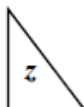
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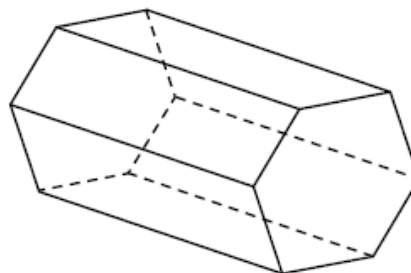
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☐



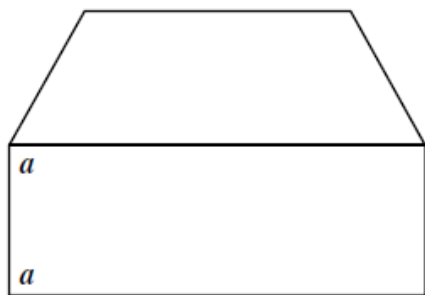
35 What are the total numbers of vertices, faces and edges on the figure shown below?



- ☐ 6 vertices, 8 faces, 6 edges
- ☐ 10 vertices, 7 faces, 13 edges
- ☐ 12 vertices, 7 faces, 12 edges
- ☐ 12 vertices, 8 faces, 18 edges

GRADE THREE EQAO QUESTIONS: Geometry

28 Simon draws a house.



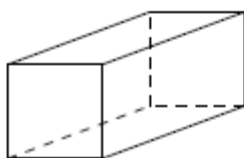
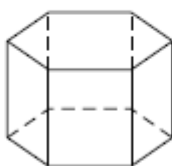
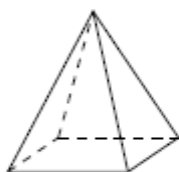
Simon's house has many sets of angles that are equal. Each angle in one set is marked with an a .

Find other sets of equal angles. Mark each set with a different letter.

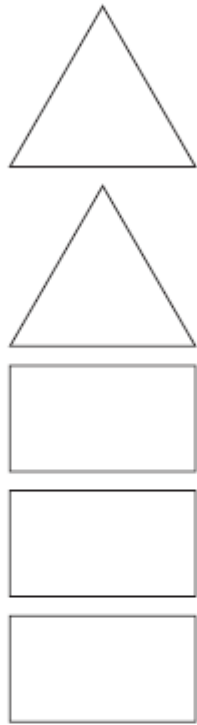
Compare each set to a right angle.

A large empty rectangular box for drawing or writing.

36 Which figure below has the same number of vertices and faces?



22 Look at the following shapes.



What 3-D figure can you make using all of the shapes?

- ☐ triangular prism
- ☐ rectangular prism
- ☐ square-based pyramid
- ☐ triangular-based pyramid

GRADE THREE EQAO QUESTIONS: Geometry

Overall Expectation #2:

- describe relationships between two-dimensional shapes, and between two-dimensional shapes and three-dimensional figures

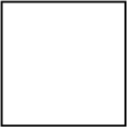

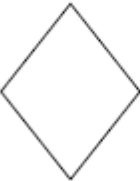

Spring 2006

20 Which statement about a rectangle is always true?

- ☐ It has a total of 3 sides.
- ☐ Two sets of sides are parallel. *
- ☐ It has only 1 line of symmetry.
- ☐ All sides are of equal length.

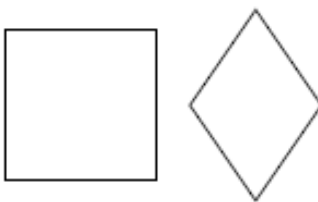
Spring 2007

15 Which quadrilateral is not a parallelogram?

- ☐ 
- ☐ 
- ☐ 
- ☐ 

GRADE THREE EQAO QUESTIONS: Geometry

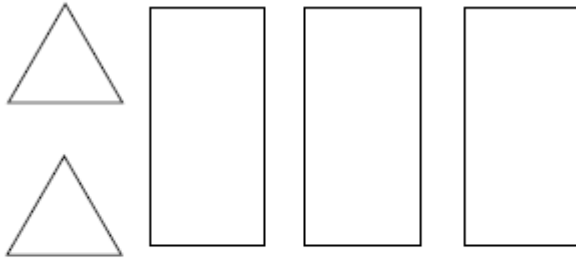
- 29** Chloe says that a square is a special kind of rectangle. Harminder says that a rhombus is also a special kind of rectangle.



Are Chloe and Harminder both correct? Explain why or why not.

Explain your answer using geometric words.

22 Below are the faces of a 3-D figure.



















What is the name of the figure?

- ☐ triangular-based pyramid
- ☐ rectangular pyramid
- ☐ rectangular prism
- ☐ triangular prism

- 22** The chart below shows information about the faces of some pyramids.

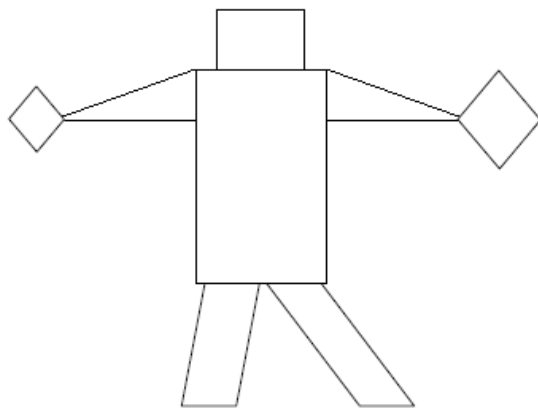
Pyramids

Name	Base	Remaining sides
Square-based		   
Triangular-based		  
_____		     

What pyramid name is missing from the chart?

- ☐ octagonal-based
- ☐ hexagonal-based
- ☐ pentagonal-based
- ☐ rectangular-based

- 34** Karen draws the picture below using 2-D shapes.



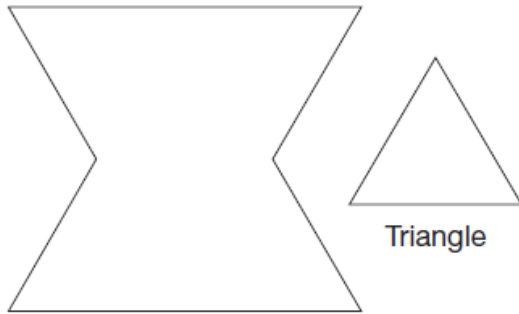
Which shapes are congruent in her picture?

- ☐ triangles
- ☐ rectangles
- ☐ rhombuses
- ☐ parallelograms

GRADE THREE EQAO QUESTIONS: Geometry

Spring 2010

21 Look at the shapes below.

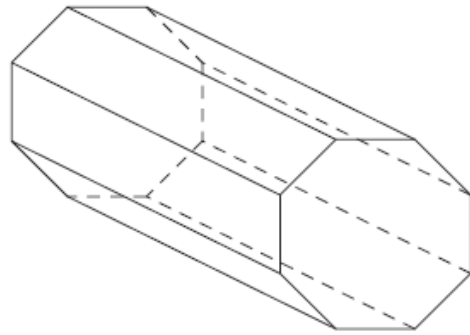


Shape P

How many of the triangles are needed to cover Shape P completely?

- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6

35 Look at the prism below.

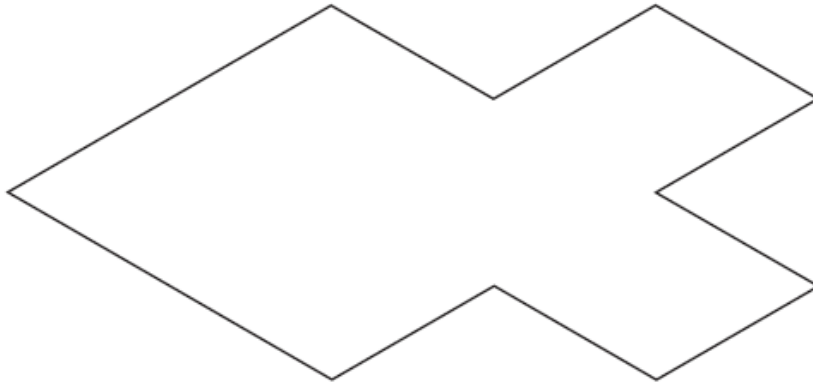


Which of the following describes all the faces of this prism?

- ☐ 2 rectangles, 7 octagons
- ☐ 2 rectangles, 8 octagons
- ☐ 2 octagons, 7 rectangles
- ☐ 2 octagons, 8 rectangles

GRADE THREE EQAO QUESTIONS: Geometry

- 7** The shape below has been made using pattern blocks.



Darius says, “I can cover this shape using 12 green triangles.”

Adam says, “I can cover the same shape using 4 pattern blocks that are all different.”

Show how Adam can cover the shape with 4 different pattern blocks.

Describe the relationship between Adam’s pattern blocks and the green triangles.

A large empty rectangular box with a thin black border, intended for a student to draw or write their answer to the question.

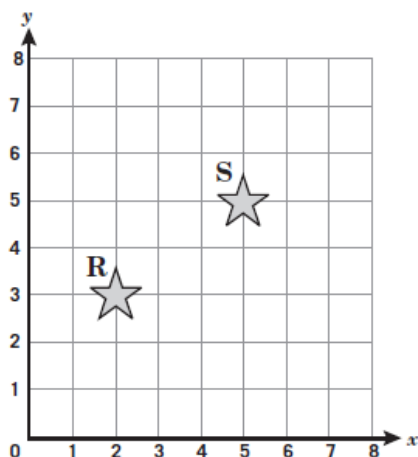
GRADE THREE EQAO QUESTIONS: Geometry

Overall Expectation #3:

- identify and describe the locations and movements of shapes and objects

Spring 2006

- 15** The result of a slide of the ★ from Point R to Point S is shown on the coordinate grid below.



Which best describes the two-step slide of the figure from Point R to Point S?

- ☐ 3 units left, then 1 unit down
- ☐ 3 units left, then 2 units down
- ☐ 3 units right, then 1 unit up
- ☐ 3 units right, then 2 units up *

- 33** Ashley used a rule to make this repeating pattern.

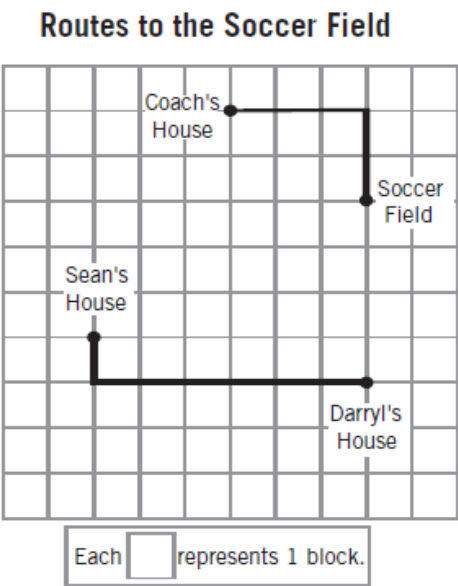


Which sentence best describes the change in the direction of the shaded arrow in Ashley's pattern?

- ☐ The arrow is flipped to point up each time.
- ☐ The arrow is flipped to point down each time.
- ☐ The arrow is rotated $\frac{1}{4}$ turn clockwise each time. *
- ☐ The arrow is rotated $\frac{1}{4}$ turn counterclockwise each time.

GRADE THREE EQAO QUESTIONS: Geometry

30 A soccer coach uses the following map to show Sean and Darryl where the new soccer field is. The route from the coach’s house to the soccer field is 3 blocks right then 2 blocks down.



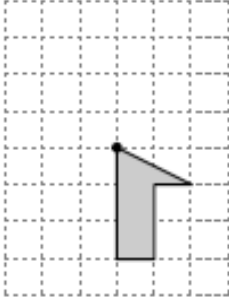
Describe a route from Sean’s house to Darryl’s house and then to the soccer field.

Describe a different route that Sean could take if he goes directly from his house to the soccer field.

GRADE THREE EQAO QUESTIONS: Geometry

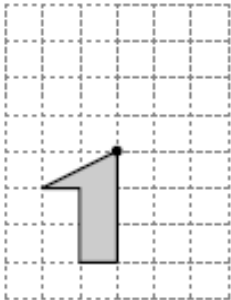
Spring 2007

- 24** Dana draws a shape on the grid below.

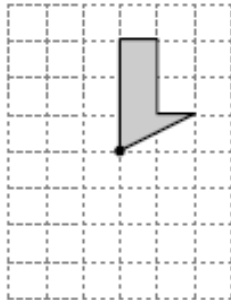


Dana's Shape

The following grids show Dana's shape after 2 different transformations.



Transformation 1



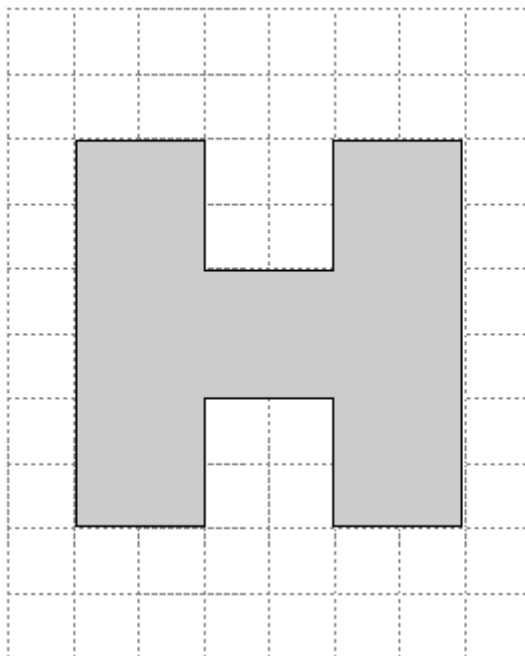
Transformation 2

Which best describes each transformation of Dana's shape?

- ☐ reflection and rotation
- ☐ reflection and translation
- ☐ rotation and rotation
- ☐ rotation and translation

GRADE THREE EQAO QUESTIONS: Geometry

9 Does this shape have any lines of symmetry?

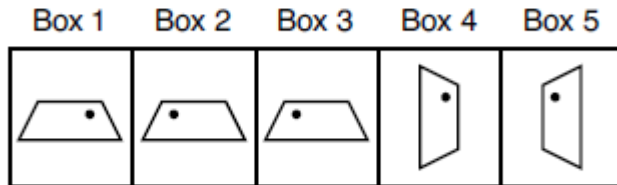


Justify your answer.

GRADE THREE EQAO QUESTIONS: Geometry

Spring 2008

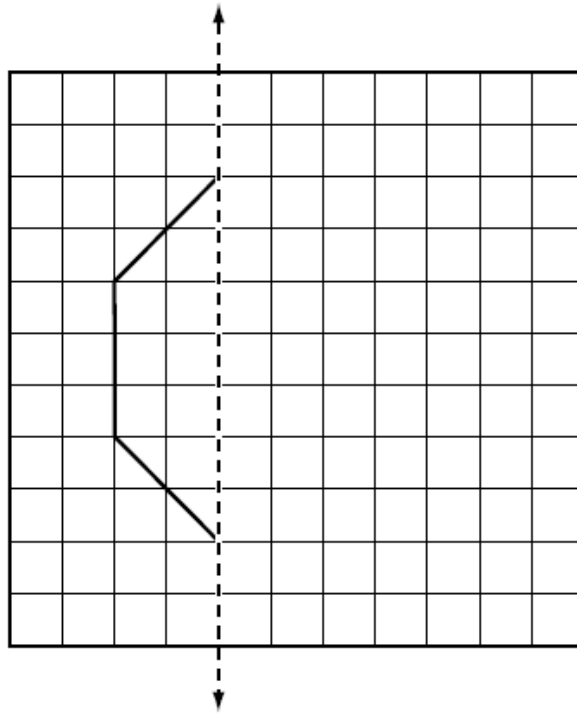
23 Which transformations have occurred, in order, from Box 1 to Box 5?



- ☐ rotation, translation, rotation, reflection
- ☐ reflection, translation, rotation, reflection
- ☐ translation, translation, rotation, reflection
- ☐ reflection, translation, rotation, translation

GRADE THREE EQAO QUESTIONS: Geometry

- 8** A line of symmetry and part of a shape are drawn.



Complete the missing side of the shape.

Does this shape have other lines of symmetry?

Explain your answer.

23 Look at the letters below. Count the lines of symmetry each letter has.

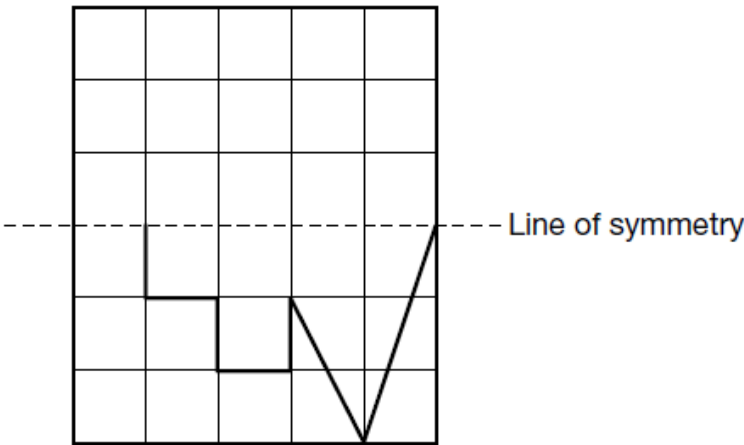


How many lines of symmetry are there in total?

- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6

GRADE THREE EQAO QUESTIONS: Geometry

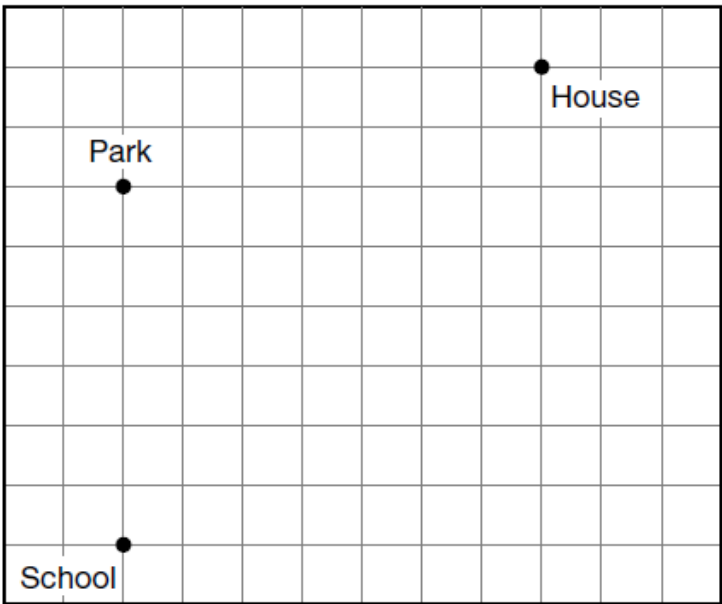
- 9** Complete the shape on the grid so that it is symmetrical. Use the dashed line as a line of symmetry.



Explain how you know the completed shape is symmetrical.

GRADE THREE EQAO QUESTIONS: Geometry

29 Dale plays at the park each day after school.




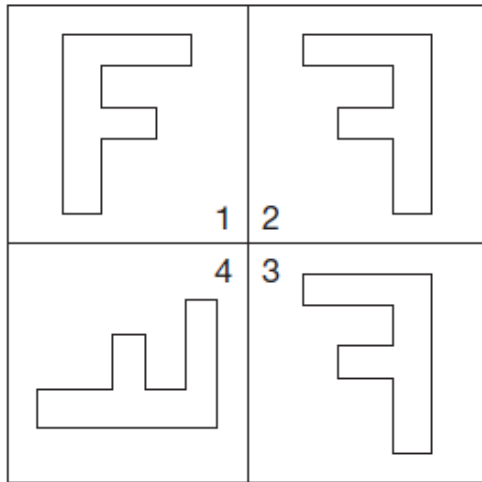
He walks only on the grid lines. Draw the shortest path he can take from the school to the park and then to his house.

Describe Dale's path.

GRADE THREE EQAO QUESTIONS: Geometry

Spring 2010

 Look at the grid below.



Which words describe the transformation of the letter F from Box 1 to Box 2 to Box 3 to Box 4?

- ☐ translation, reflection, rotation
- ☐ reflection, rotation, translation
- ☐ reflection, translation, rotation
- ☐ translation, rotation, reflection

GRADE THREE EQAO QUESTIONS: Geometry

25 Look at the letters below.

M O E X

Which of the letters have more than one line of symmetry?

Justify your answer. Write about each letter.

M

O

E

X